MEETING COMBATANT COMMANDERS' NEEDS: THE NATIONAL TRAINING CENTER AS A CASE STUDY

A MONOGRAPH
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Second Term AY 96-97

REPORT DOCUMENTATION PAGE

Form Approved
OMB No. 0704-0188

1. AGENCY USE ONLY *(Leave blank)*	2. REPORT DATE	3. REPORT TYPE AND DATES COVERED
	22 May 1997	MONOGRAPH

4. TITLE AND SUBTITLE

MEETING COMBATANT COMMANDER'S NEEDS - THE NTC AS A CASE STUDY

5. FUNDING NUMBERS

6. AUTHOR(S)

MAJ John S. MORRIS

7. PERFORMING ORGANIZATION NAME(S) AND ADDRESS(ES)
School of Advanced Military Studies
Command and General Staff College
Fort Leavenworth, Kansas 66027

8. PERFORMING ORGANIZATION REPORT NUMBER

9. SPONSORING / MONITORING AGENCY NAME(S) AND ADDRESS(ES)
Command and General Staff College
Fort Leavenworth, Kansas 66027

10. SPONSORING / MONITORING AGENCY REPORT NUMBER

11. SUPPLEMENTARY NOTES

12a. DISTRIBUTION / AVAILABILITY STATEMENT

APPROVED FOR PUBLIC RELEASE:
DISTRIBUTION UNLIMITED.

12b. DISTRIBUTION CODE

13. ABSTRACT *(Maximum 200 words)*

SEE ATTACHED

14. SUBJECT TERMS

NTC ; NATIONAL TRAINING CENTER

15. NUMBER OF PAGES
49

16. PRICE CODE

17. SECURITY CLASSIFICATION OF REPORT	18. SECURITY CLASSIFICATION OF THIS PAGE	19. SECURITY CLASSIFICATION OF ABSTRACT	20. LIMITATION OF ABSTRACT
UNCLASSIFIED	UNCLASSIFIED	UNCLASSIFIED	UNLIMITED

SCHOOL OF ADVANCED MILITARY STUDIES

MONOGRAPH APPROVAL

Major John S. Morris

Title of Monograph: MEETING COMBATANT COMMANDER'S NEEDS ~~Core Functions: Useful Concept for Army Planning?~~

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Accepted this 22d Day of May 1997

ABSTRACT

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by MAJ John S. Morris, USA, 49 pages.

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The study begins by linking the NTC to the Army's Title 10 requirements. It then identifies what US Central Command (CENTCOM) and US Pacific Command (PACOM) require from mechanized brigades in four areas: reception, staging, onward movement, and integration (RSOI), intelligence, indirect fire support, and threat forces.

After a brief look at the development and history of the NTC, the study examines the program at the NTC, comparing the training program in each of the four areas to the CENTCOM and PACOM requirements.

The study concludes that, with few exceptions, the NTC of today is an excellent tool for preparing mechanized units for employment by either CENTCOM or PACOM in an MRC.

Meeting Combatant Commanders' Needs: The National Training Center as a Case Study

A Monograph
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I. Introduction

Because of the demise of the Soviet Union, the strategic environment of the world has changed for the United States. For the Army, this means partly that it must prepare to fight in a different type of mid to high intensity conflict. Instead of preparing to potentially fight the Warsaw Pact outnumbered on the plains of Europe as a forward deployed army, it must now work to support a new national military strategy as a force projection organization in support of the national strategy of engagement and enlargement. The basis of the present strategy is the Clinton administration's 1993 *Bottom-Up Review*, an assessment of US force requirements in the post-Soviet world. This review concluded that the US should maintain a force sufficient to win two nearly simultaneous major regional contingencies (MRCs). For planning purposes, the *Bottom-Up Review* anticipates these two Major Regional Contingencies as yet another Iraqi invasion of Kuwait (and Saudi Arabia's Eastern Province) and another North Korean invasion of South Korea[1]. Further, recent conflicts such as Operation Desert Storm reveal that any military operation that the US undertakes is likely to have multinational aspects[2]. This monograph examines how today's Army, using the National Training Center (NTC) at Fort Irwin, California as a case study, is conducting training to meet the needs of the two regional combatant commanders who would have to fight those MRCs.

Section 3062 of United States Title 10 establishes the requirements for the US Army, including both active and reserve components. Paragraph (b) of this section states:

> "In general, the Army . . . shall be organized, trained, and equipped primarily for prompt and sustained combat incident to operations on land. It is responsible for the preparation of land forces necessary for the effective prosecution of war except as otherwise assigned and, in accordance with integrated joint mobilization plans . . ."[3]

The Department of Defense Reorganization Act of 1986 and the nature of modern warfare demand that US forces will fight today as a joint team[4]. Current joint doctrine starts with the five regional unified commands, each commanded by a Commander-in-Chief (CINC). These combatant commanders are assigned planning missions based on their geographic areas of responsibility. These missions are assigned through the Joint Strategic Capabilities Plan (JSCP), published bi-annually by the Chairman of the Joint Staff[5]. The JSCP also apportions forces from all of the services to each CINC to use in accomplishing his missions.

The Army's addresses it's Title 10 responsibility in it's mission statement, which in part reads:

> "The Army . . . will be organized, trained, and equipped primarily for prompt and sustained combat incident to land. It is responsible for the preparation and sustainment of land forces . . . according to integrated joint mobilization plans . . . to meet the needs of war[6]."

This requirement is mirrored in today's joint doctrine. Joint Pub 0-2, Unified Action Armed Forces (UNAAF), states that each service is "To recruit, organize, train, and equip interoperable forces for assignment to combatant commands[7]." So the Army is responsible for training its forces that are apportioned to the regional CINCs, per the CINCs' contingency plans. The CINCs, as Joint Force Commanders, choose the capabilities that they need from the forces apportioned to them for each mission that they plan[8].

For the force projection Army, many of the forces apportioned to the CINCs would come from US Forces Command (FORSCOM), the Army Major Command (MACOM) that commands all Army units in the Continental United States (CONUS). FORSCOM's mission statement nests that of the Army (and the requirement to support the CINCs) in the part that says "Train, mobilize, deploy, and sustain combat ready forces capable of operating in a joint and combined environment to meet worldwide operational commitments[9]."

How does the Army, and by extension FORSCOM, train forces capable of operating in a joint and maybe multinational environment in support of CINC operational missions? The first principle of training these forces, found in FM 25-100, Training the Force, is to train as a combined arms and services team[10]. This requires the full integration of all combat, combat support, and combat service support units into collective training at the battalion level and higher. This approach acknowledges that the maneuver commander controls and orchestrates all of the systems in training that he would have with him in combat. This approach is related to the second principle found in FM 25-100, "Train as you fight." Training must integrate combined arms maneuver with as **realistic** conditions as possible (smoke, noise, the enemy, weather, etc.) and include joint and combined operations[11].

An important institutional training tool for the Army's is it's Combat Training Center (CTC) Program. The objective of the CTC Program is to provide highly realistic and stressful joint, interservice, and combined arms training according to Army doctrine[12]. The program today has four components. The Battle Command Training Program

(BCTP) trains division and corps commanders and their staffs on combined arms and joint operations by using simulations pitting them against a modern, highly trained opposing force. The Combat Maneuver Training Center (CMTC) in Germany provides combined arms training for Army battalions and brigades based in Europe. Both the Joint Readiness Training Center (JRTC) in Louisiana and the NTC in California provide deployment and combined arms training to battalions and brigades in CONUS. The NTC, with it's focus on mechanized forces, and the JRTC, with it's focus on dismounted operations, are arguably FORSCOM's major vehicles for providing combined arms training for it's battalions and brigades for employment by the CINCs in combat operations.

Recent history reveals the close link between the CTC Program and operational missions. Brigade size and smaller units have been deployed without their parent divisions and corps headquarters to accomplish operational missions in joint and combined situations. An example of this is the story of the Tiger Brigade in the Gulf War in 1991. The Tiger Brigade, a maneuver brigade of the US Army's 2nd Armored Division, initially deployed to Saudi Arabia with the 1st Cavalry Division in October 1990. For Operation Desert Storm, however, it was attached in December 1990 to the US 1st Marine Division[13]. This brigade had to fight "joint" in the division's attack north to Kuwait City. Aspects of this "jointness" included the attachment of a Marine Light Armored Infantry (LAI) Company, the integration of US Navy Air and Air Naval Gunfire Liaison Company (ANGLICO) teams, and the incorporation of US Air Force Forward Air Controllers (FACS). As a FORSCOM unit, the soldiers of the Tiger Brigade were trained at the NTC

in Spring 1989[14]. An examination of the program at the NTC may reveal to what degree it contributed to the success of the Tiger Brigade in this operation.

Another pertinent example is the Intrinsic Action exercise program. Under this program, selected Army battalions deploy twice per year to Kuwait to conduct exercises with the Kuwaiti military. These units prepare for deployment, fly to Kuwait, draw equipment, conduct security and sustainment operations (SASO), and deploy to field locations. With the integration of other US services and the Kuwaiti military, these exercises are truly both joint and combined in nature. Sometimes they are expanded and become actual operations, as was the case in October 1994. In response to the threat of Iraqi aggression against Kuwait, US CENTCOM increased the deployment to two brigades of the 24th Infantry Division (Mechanized) and incorporated units from the US Marine Corps (USMC), US Air Force (USAF), and air force elements from France and Britain as part of Operation Vigilant Warrior[15]. The Intrinsic Action program may provide an indication of the interoperability training potential of the NTC.

Is the US Army, as part of it's Title 10 responsibilities through it's NTC program, providing forces trained to meet the CINCs needs in mid and high intensity combat operations? This monograph utilizes the NTC, due to it's key role in training brigades for mid to high intensity combat, as a case study in an effort to answer that question. As the Army's most costly peacetime training program in it's history[16], few would doubt that the NTC did an outstanding job of preparing Army units during the Cold War to "fight outnumbered and win" against the Soviet hordes[17]. But has the NTC adapted to the mid to high intensity combat requirements in today's environment? Critics of the program

argue that the NTC scenarios do not present realistic situations for the Blue Force (BLUEFOR), the friendly US Army unit being trained, when it comes to indirect fire support and the threat forces facing them[18]. Others have expressed some dissatisfaction about the adequacy of the NTC program as well, the implication being that units that train there do not "train as you fight" because the scenarios do not always realistically replicate what a unit could expect to encounter in actual combat in one of the MRCs. Can, or should, the NTC attempt to replicate exactly one or both of the MRCs?

In order to establish a basis for answering the research question, the study starts by identifying exactly what the requirements of the CINCs are today. Some are general and apply to both MRCs. Others are unique to a particular MRC. Next, the training program at the NTC is examined. After a short trip through the history and development of the NTC, today's program is analyzed by comparing the training being conducted in the California desert with the CINCs requirements in the previous chapter. The study concludes with a summary in the areas covered in the paper.

Due to the relatively short length of a monograph, this study will be limited and focused. First, it will focus on the training portion of the Army's mission. There will not be any in-depth discussion on mobilization, equipment, or organization of US Army units. Second, it will deal only with the training being conducted in preparation for mid to high intensity combat. Although Army units have been involved in many operational deployments for non-combat operations in the recent past, there is simply not enough room here. That could be a study in itself. The third limitation concerns the elements of training being studied. This study will focus on four areas, any one of which is important

to the CINCs: Reception, Staging, Onward Movement, and Integration (RSOI), intelligence and reconnaissance, indirect fire support, and the threat forces involved in the training.

This monograph assumes that any mid to high intensity combat situation in the near future would more likely be one of the two MRCs currently in the nation's strategy. It further assumes that current allies in those areas, such as Saudi Arabia, Kuwait, and South Korea would fully participate in combat operations to protect or regain their territories. In other words, there will be no discussion concerning the People's Republic of China, Russia, etc. as potential adversaries in this study.

II. Combatant Commanders' Requirements

Contemporary threats faced by the US are more ambiguous and regionally focused than during the Cold War[19]. Having established that the CINCs write estimates, strategies, and plans for accomplishing the missions assigned them in the JSCP, it seems clear that there must be a linkage between those plans and the capabilities of the forces apportioned to carry them out. CJCSM 35500.04, Universal Joint Task List (UJTL), links operational level plans to tasks for tactical level units, providing the connecting structure across the strategic, operational, and tactical levels of war. The basis for linkage is that these tactical level tasks must all be performed to standard and in concert with one another in order for an operational level plan to succeed[20]. In other words, failure at any task level can impact the ability of a joint force to integrate that capability. What follows is a discussion concerning the capabilities that the combatant commanders need from their apportioned tactical forces, in this case brigades, for each of the respective MRCs, with respect to the limitations stated in Chapter I.

US Pacific Command (PACOM) is responsible for defending South Korea, while US Central Command (CENTCOM) is responsible for defending Kuwait and Saudi Arabia. Two of the four capabilities under study are common to both PACOM and CENTCOM: intelligence and indirect fire support. In other words, the two CINCs requirements for these areas are the same, easing the training burden for units. For the remaining two, RSOI and the threat forces, each CINC has a different requirement stemming from conditions unique to his theater.

Common Requirements

Intelligence is an example of a task with vertical linkages across the levels of war for both CENTCOM and PACOM. At the strategic and operational levels, national means are used to collect, analyze, and disseminate intelligence to users ranging from theater commanders to low level tactical units. On the flip side, low level tactical units gather intelligence that is passed up the chain, sometimes to the national level. These vertical relationships form an intelligence "system[21]." Tactical units need to be accustomed to utilizing not just the information gathered by their organic reconnaissance when formulating plans and orders, but must also be able to integrate higher level sources' intelligence into those plans. Conversely, the battalion task force scouts must be capable of gathering required intelligence without dying in the process. In a nutshell, what both CINCs need are units that are trained to integrate intelligence from all levels into their plans. Therefore, the questions to be answered in this area: Does the NTC train units to gather, analyze, integrate, and disseminate intelligence gathered by it's organic resources? Does the program also train units to integrate intelligence gathered by higher level resources, such as the Long Range Surveillance Companies (LRSC), Joint Strategic Airborne Radar System (JSTARS), and satellite imagery?

The next requirement common to both CINCs concerns indirect fires. In this area, the UJTL links the tactical tasks, TA 3 Employ Firepower with the CINCs' operational task, OP3 Employ Operational Firepower[22]. This tactical task requires that a unit be capable of employing mortar, artillery, and multiple launch rocket system (MLRS). Since fighting for a CINC in an MRC is a joint endeavor, it also includes the ability to call for

and receive naval gunfire and close air support (CAS). What the CINCs need here are units that are trained to incorporate all of these fires in harmony with one another. So the question in this area: Does the NTC provide an opportunity for training brigades to incorporate fires from US Army brigade, division, and corps sources, as well as fires from other services, in their scenarios?

In addition to the common requirements above, each CINC has unique requirements of his own when it comes to the brigade's strategic deployment and eventual integration into the theater, as well as the threat forces they will engage in combat.

CENTCOM

CENTCOM, with few Army forces permanently assigned, relies mostly on it's apportioned Army forces when planning it's MRC. These forces must be able to rapidly deploy from outside the region and then be postured for combat in an unopposed entry scenario[23]. The ground dimension of the Army' forward presence in theater is the prepositioning ashore of equipment, thus reducing time-distance challenges. Under CENTCOM's RSOI structure, an Army heavy brigade can fly to Kuwait, drive to the prepositioning site located at Camp Doha, draw all of the equipment needed for a brigade task force, and deploy to their tactical assembly area (TAA) ready to fight. In addition to drawing equipment and moving out to the TAA, deploying units must be prepared to conduct a variety Stability and Support Operations (SASO). Included in this procedure is the potential that for Army War Reserve-5 (AWR-5), a configured armor brigade set, including combat support and combat service support equipment, is on hand in Kuwait.

This set includes 30 days of supply for the brigade. AWR-5 is currently being expanded to a division set with additional bases to be located in Qatar[24]. In addition to the prepositioned ashore equipment, the Army also maintains one brigade set (AWR-3) along with other equipment and supplies on it's fourteen afloat preposition ships[25]. Given this approach to RSOI, which has been tested in operations such as Vigilant Warrior in 1994[26], CENTCOM clearly relies on receiving forces that have trained on deploying in this manner.

CENTCOM also faces a unique threat in it's MRC planning; that of the Iraqi military. Of immediate concern to the US and it's regional partners is the capability for Iraq to execute a short-notice attack against Kuwait or Saudi Arabia[27]. Despite the devastation inflicted upon them during Operation Desert Storm, Iraq has managed to rebuild it's military back into one of the strongest forces in the region. Their army now consists of 27 divisions, of which eight are Republican Guard, comprising over 700,00 soldiers, 2200 tanks (including T-72s), 3500 armored fighting vehicles, and 1900 artillery pieces. The Iraqi Air Force still has over 250 fighters, to include MIG-29s[28]. Clearly Iraq is a major mechanized force and the terrain in the region supports these kinds of operations. The deployment of two Republican Guards divisions to the Kuwaiti border in 1994 demonstrated Iraq has the capability and the resolve to rapidly move heavy units from one part of the country to another. Clearly they have the ability to conduct mechanized multi-division offensive operations against Kuwait or Saudi Arabia that would trigger a coalition deployment. Despite their use of former Soviet equipment, the Iraqi Army should not be construed as a "miniature" of the former Soviet Army. First, artillery

support is nowhere near that of the former Soviet Army. Each division has four battalions while the corps artillery brigade usually has only three. Further, they are not organized in to artillery groups at the regimental, divisional, or corps levels. In this area they operate in a manner distinctly different than the old Soviet model. Second, their doctrine and tactics are a British and Soviet composite. They task organize their heavy forces into "combat groupings", to include artillery, engineers, anti-tank, and air defense units. Their deliberate offensive operations are characterized by a desired 3:1 weapon and manpower superiority, preceded by an artillery preparation. Hasty operations require only a 2:1 advantage. In a movement to contact, the Iraqis will use one of the division's three brigades as the advance guard, most likely using an armored brigade in a desert environment. Reconnaissance is similar to the old Soviet system, with divisional reconnaissance 50 km out front and brigade reconnaissance 25 km out[29].

In the deliberate defense, two thirds of their combat power is forward, with one third held in reserve. Fighting positions are fronted by anti-tank ditches and minefields, usually in a variety of linear configurations, although the triangle shaped pattern was often used in the war with Iran. In a hasty defense, one third of the combat power is forward, with two thirds back as a counterattack force.

In sum, the Iraqi military still has some facets that look very much like the old Soviet military, although their lack of huge numbers of artillery really make them more of a maneuver-supported-by-fires Army. Unlike the US, there is no mention of flexibility in their tactical doctrine[30]; once a plan is made, they can be expected to stick to it. This aspect is very Soviet in nature.

PACOM

A different situation exists in Korea. First, PACOM has created a sub-unified joint command, US Forces Korea (USFK). The Commander of USFK also serves the CINC of the United Nations Command (UNC) and as the CINC of ROK/US Combined Forces Command (CFC). He is tasked with defeating any North Korean attack against the Republic of Korea. As such (and unlike CENTCOM) he has a large, forward deployed force already in theater (there are about 36,000 US military personnel currently in Korea[31]). Added to this are the 500,00 strong Army of the Republic of Korea (ROK)[32]. Like CENTCOM, an unopposed entry is anticipated for units deploying from CONUS, as is the potential for SASO operations. Unlike CENTCOM, the US does not have prepositioned brigade sets, like AWR-5, in Korea. Army units deploying to Korea would have to ship their own equipment from home station[33]. This slower method of deployment is made possible by the fact that such a huge standing force is already in place in Korea, allowing these deploying forces to be reinforcing rather than "911" troops. The training required for units to ship their own equipment would be in the form of rail loading equipment for shipment to port and loading the equipment on ships.

The threat force is also different, as well as the terrain which would be fought over. The Democratic Peoples Republic of Korea military numbers over 1.2 million personnel on active duty, with reserve forces estimated at up to 5 million, making it the world's fourth largest military force. The majority of these forces are deployed forward, in attack positions, within 65 km of the Demilitarized Zone (DMZ)[34]. The ground forces, The North Korean Army (NKA) are by far the largest and most formidable. In the 1980s,

their force structure became increasingly mobile and mechanized. The NKA's 2600 tanks include older Soviet T-54/55 and T-62 main battle tanks, as well as Chinese Type 62 and 63 light tanks. Their 1100 armored personnel carriers include the M-1973/M1967 and a few BTR-60s. But the most threatening aspect of the NKA's capability lies in it's artillery, due in part to the perceived weakness of the North Korean Air Force. The NKA relies on massive numbers of artillery systems to support ground operations[35]. For example, within a corps, each brigade has two organic artillery battalions, each division has four more battalions, and the Corps Artillery Brigade has nine reinforcing battalions to go along with the six battalions of Multiple Launch Rockets. These units would be formed into Artillery Groups at Regimental (RAG), Divisional (DAG), and Corps (CAG) levels. All of this is backed up by two strategic artillery corps, each with six battalions[36]! This provides the NKA with about a 4:1 total numerical weapon advantage over the ROK Army, although the superiority of most of the ROK weapon systems reduces this advantage in a qualitative sense. The manpower advantage is only a little over 1:1. Clearly then, the NKA is a fires-supported-by-maneuver army.

North Korea's doctrine could be described as a combination of Soviet military art and Chinese light infantry tactics, with political doctrine as a motivator[37]. Like the Iraqis, flexibility is not mentioned in their tactical doctrine[38]. Despite the reliance on Soviet thought, NKA personnel ride in armored personnel carriers or trucks, not fighting vehicles. Once the force reaches it's destination, the troops dismount to conduct infantry operations rather than fighting mounted like Russian infantry fighting vehicle tactics. The NKA relies on the foot soldier to exploit nontrafficable terrain, of which there is much in

the ROK. The NKA will seek local force ratios of 3-5:1 in armor, 6-8:1 in artillery, and 4-6:1 in infantry in any attack[39].

Reconnaissance is very similar to the Soviet Model as well. Divisional reconnaissance extends out to the enemy division's rear boundary, with regimental reconnaissance going to the enemy brigade rear boundary (about the same as the Iraqi concept). Different is the NKA's use of Special Operations Forces (SOF), some 80,000 strong, to conduct operational reconnaissance missions. SOF can be expected to be inserted into concealed locations to develop targeting information for surface-to-surface missiles (SSMs) and long range artillery and to find the location of the enemy's reserve[40].

The infantry division is the basic combat unit in the NKA, task organized with tanks, artillery, and engineers in the attack. NKA doctrine calls for overwhelming artillery fire support during offensive operations, placing a heavy barrage in front of the assaulting echelon. A NKA division attack would lead with a light infantry battalion as it's forward element, followed by the main body of two regiments reinforced with tanks and artillery, with the third echelon regiment following 6-8 km behind. Much like the Soviet system, regimental reconnaissance would extend into the rear of a CFC division while divisional reconnaissance would extend into the CFC corps rear area[41].

NKA defensive doctrine also follows Soviet parameters, involving either a positional defense (deliberate defense), mobile defense (to trade space for time), or retrograde operation (to gain time). Generally, any defense would be organized into four echelons: security, main defense, rear area, and anti-tank support area. Using restricted terrain and obstacles, CFC forces would be channeled into areas where they would be

engaged by massed fires from artillery and direct fire weapons. Threatened breakthroughs would be met with counterattacks by mobile forces[42].

In short, the NKA can be expected to fight very much like Soviet doctrine called for, with huge artillery strikes followed by overwhelming numbers of maneuver forces crashing through the sector.

To sum up the major differences between CENTCOM and PACOM (or more realistically USFK) requirements in the areas of RSOI and threat forces, it seems that there are four major ones: the differences in the RSOI process noted above, a mounted versus a dismounted threat force, a maneuver-supported-by-fire (Iraq) versus fires-supported-by maneuver (Korea) approach, and wide open desert terrain versus mostly restrictive terrain. Has the NTC come up with a way to train units in a manner that prepares them to be successful against both of these scenarios?

III. The NTC as a Case Study

The first US Army maneuver battalions rotated through the NTC in 1981. This new training program was probably the most important product of the evolution in training within the Army up to that time. Following the conflict in Vietnam, the Army recognized the inadequacy of it's current training programs and facilities to support combined arms training in preparing itself to fight the Warsaw Pact[43].

Major General Paul F. Gorman was the man who came up with the dream and the concept for the program while he was the Deputy Chief of Staff For Training of US Army Training and Doctrine Command (TRADOC) in 1975[44]. After studying the Arab-Israeli Yom Kippur War in 1973, TRADOC was producing a new doctrine for tactics, Field Manual 100-5, Operations, that called for the Army to train as they would fight. However, several major problems stood in the way of making that happen. Few units could field an opposing force that would provide realism by replicating the force ratios and tactics of the Warsaw Pact. Defense budgets were shrinking. Terrain and environmental considerations restrained most posts from maneuvering battalions and brigades. By 1976, the concept of a training facility where Army battalions and, eventually, brigades could "fight" an opposing force in a realistic "battle" had taken hold. The idea was not really new. The Navy had already established the Naval Fighter Weapons School (remember "Top Gun"?) and the Air Force already had "Operation Red Flag" to train their pilots in force-on-force engagements. Gorman suggested that the Army establish it's own centralized "Red Flag" at Fort Irwin, where units would rotate through for training on a regular basis[45]. His proposal was formally approved in 1977, to begin operations in 1980.

The plan was that, by 1984, forty battalions per year would rotate through the NTC, two at a time, therefore allowing brigade level operations to be conducted.

Because training units in CONUS was a FORSCOM responsibility, it was designated as the lead agency in developing the initiative. It would operate the NTC, providing the OPFOR and everything that training units needed for support. However, TRADOC would have a large role as well. It would develop the evaluation and instrumentation plans, using technology to enhance the capture of lessons learned. it would also provide the NTC Operations Group (OPSGP). The OPSGP would write the operations plans for training units and act as their higher headquarters during the rotation, portraying notional units not actually present. They would also provide the Observer-Controllers (OCs), whose job would be to record each battalion's combat operations down to the platoon level. The OCs would also facilitate After Action Reviews (AARs) and provide a Take Home Package to each training unit. The US Air Force, despite some resistance on their part early on, was also integrated into the program. The Tactical Air Command (TAC) was to provide Close Air Support (CAS) to both the OPFOR and BLUEFOR in the form of 84-90 sorties per rotation. The US Marine Corps would provide OPFOR augmentation on occasion as well[46]. Thus the NTC would be a joint effort between FORSCOM, TRADOC, the US Air Force, and the US Marine Corps. This relationship remains in effect today.

The NTC experience for BLUEFOR units began six months prior to the actual training rotation. OCs visited the BLUEFOR unit, where the division, brigade, and battalion commanders would select the tactical missions that supported their training

objectives to be included in the rotation. Based on these missions, the OPSGP would write the scenarios for the rotation. The six basic combat scenarios were movement to contact, hasty attack, deliberate attack, defend in sector, defend from a battle position, and meeting engagements[47]. One month prior to the rotation, the BLUEFOR brigade received the operations plan from the "division" (the NTC OPSGP). During this six month period the BLUEFOR brigade conducted a "train up" at home station in preparation for the NTC.

Brigades deployed to the NTC along with their "slice" of divisional troops (engineers, artillery, signal, etc.). The initial intent was for units to draw their vehicles from a pool at the NTC, thus simulating the procedures for drawing POMCUS stock that was prepositioned in Europe for combat with the Warsaw Pact. This was also to save the Army money. However, problems with the equipment at the NTC resulted in units bringing their own equipment except tracked vehicles (tanks, fighting vehicles, etc.), which were still drawn at the NTC. The equipment draw, a largely administrative activity, lasted three days, and really did not simulate drawing equipment at a POMCUS site[48].

On the fourth day the two battalions of the brigade moved out to the field training area to conduct combat operations against the OPFOR, a phase known as "force-on-force", utilizing a laser engagement system to determine "hits". On day eight, one battalion task force was released from the brigade to conduct live-fire training, returning to force-on-force on day twelve. The other battalion task force spent nine days in force-on-force followed by five days of live-fire training. Each fourteen day training period contained six to ten separate missions, each of which was followed by AARs. The

BLUEFOR then returned to the cantonment area to turn in equipment, for which they had three days, and to attend the final AAR.

The OPFOR concept at the NTC sought to improve on the former Army practice of using "aggressor" forces with no designated nationality who were almost always outnumbered and defeated by American forces[49]. The 1976 version of FM 100-5, Operations, portrayed the enemy as highly mechanized forces typical of Warsaw Pact or Soviet surrogates which would vastly outnumber US forces in any major conflict. That same year the Army formalized its opposing force program with the publication of Army Regulation 350-2, Opposing Forces Program, which included objectives and goals for any OPFOR.

The OPFOR, known as the "Krasnovians" in NTC scenarios, consisted of one mechanized infantry battalion (6th Battalion, 31st Infantry) and one armor battalion (1st Battalion, 73rd Armor), as well as temporary augmentees from other Army or Marine units. These units were thoroughly trained in Warsaw Pact doctrine and tactics and organized as a Soviet Motorized Rifle Regiment called the 32nd Guards. Thus, when the OPFOR attacked a BLUEFOR battalion they would outnumber them roughly three to one. In 1987, the OPFOR expanded when a second regiment was formed, the 125th Guards, allowing larger operations[50]. The doctrine that the OPFOR employed stressed fire-supported-by-maneuver offensive operations whenever possible. If the OPFOR could not find a bypass, huge artillery strikes would be followed by massive straight-on attacks by the entire regiment (up to 150 combat vehicles) against the BLUEFOR battalion. The OPFOR almost always decimated the BLUEFOR. Besides their firepower advantage,

they had three more advantages. First, they spent an average of approximately half of the days each year conducting repeated field training exercises over the same terrain. They were also trained on both US and Soviet doctrine and tactics. And they all spoke English, an big advantage when it came to eavesdropping on BLUEFOR radio conversations. In short, despite being known as the "Krasnovians", the OPFOR *was* the Soviet Army at peak capability - a very realistic portrayal of the Army's most likely adversary during the Cold War.

Clearly the NTC program met it's goal during the Cold War of providing realistic training to heavy FORSCOM units in preparation for high intensity operations against the Warsaw Pact. But what does the NTC program look like today in the four areas under investigation? Has it evolved to support today's requirements?

Reception, Staging, Onward Movement, and Integration

. RSOI is the process of receiving forces in theater and molding them into ready and sustainable combat capable forces. With today's force projection approach, RSOI is the critical operational link between strategic deployment and tactical maneuver. In recognition of this the NTC began in earnest to develop an RSOI training program in September 1994[51]. As opposed to the original approach of the administrative "draw week" described above, deploying to the NTC today is an excellent opportunity for brigades to train on deployment procedures, onward movement, and integration. The NTC's RSOI program goals now include:

- Replace the administrative prep week with scenario-based RSOI week;
- Replicate Army War Reserve Position Stock (AWRPS) draw procedures and interface with theater logistical base;

- Place immediate tactical requirements on the brigade upon arrival in theater[52].

Training begins approximately 120 days prior to the unit's deployment to the NTC when the brigade receives a contingency plan for deployment to a notional island of Tierra del Diablo. They also receive a country study providing political, historical, and military background for the area. Around this time, 90-120 days prior to the deployment, the unit's leadership travels to the NTC to participate in the Leader's Training Program (LTP), which includes a reconnaissance of the RSOI area (the "Dust Bowl") and the terrain on which they will fight. Although the LTP is not formally a part of the RSOI process, this closely replicates the reconnaissance that would be conducted in advance of the unit's deployment to one of the CINC's area of operations for actual combat operations[53].

Ninety days prior to deployment, they receive a JCS alert order and a CNN style news video covering current events in the area. Forty-five days out they receive another video and the JCS deployment order. With these training aids, the brigade is capable of putting together a home station training program that will prepare them for this particular deployment.

The brigade's deployment begins with the rail-loading of the equipment that is to be sent from home station to the NTC; that is, necessary equipment which will not be drawn at NTC as part of RSOI week. As will be shown below, most of the equipment the brigade requires will be drawn at NTC. Gone are the days of a brigade loading 100-150 rail cars for a deployment to the NTC; the average is now about fifty[54]. The brigade's soldiers then board aircraft for "strategic lift" to Tierra del Diablo. Upon arrival "in

theater", the brigade is transported by bus to the "dust bowl", an area that is patterned after Camp Doha in Kuwait[55]. The brigade offloads the rail-loaded equipment and initiates it's draw of prepositioned equipment that has been notionally downloaded from the APA ship. The NTC brigade equipment set looks alot like the AWR-3 set that is actually afloat. The brigade is assisted by the NTC's logistical support contractor; the same contractor that operates the AWR-5 brigade set in Kuwait[56].

The brigade's equipment is configured into company sets, which are used as building blocks for creating battalion task forces. During the issue of the brigade's equipment, which takes about one week to complete, the brigade inspects, inventories, and signs for the equipment, uploads weapons, radios, and secondary loads, and moves to a staging area to form into battalion task forces.

While all of this is going on, the brigade is concurrently conducting tactical operations: force protection, conducting training, zeroing weapons, and planning for combat operations[57]. Additionally, they are given a company/team size tactical operation to plan that will be executed before the brigade moves out to it's TAA at the end of RSOI week. These operations are varied, including refugee assistance, minefield clearing, convoy escort, etc. For example, the BLUEFOR may be required to assist the indigenous "Parumphians" (portrayed by the OPFOR and sometimes their families) with checkpoint operations[58]. The NTC has also hired civilian contractors to go into the brigade's RSOI area to act as civilian clutter on the battlefield[59]. Although this mission only requires a company/team to execute, it requires detailed planning at the battalion and brigade level. The 52nd Division Tactical Operations Center (TOC), portrayed by the NTC OPSGP, acts

as the higher headquarters for the brigade providing friendly and enemy situation updates that escalate towards combat operations as the week wears on. The point here is that the first week for a BLUEFOR unit is no longer an administrative activity - like a real deployment, it is tactical from the start.

RSOI week culminates with the execution of the company/team mission and the brigade combat team's (BCT) movement to it's assigned TAA. AARs are conducted by the OCs at the battalion and brigade level, providing valuable feedback and discussion on the BCT's RSOI experience. The brigade then moves out to begin it's first force-on-force mission against the OPFOR.

In short, it is hard not to be impressed with the tremendous strides that the NTC has made in presenting realistic RSOI training. It would appear that the NTC has largely met it's goals for RSOI. A particularly strong point of this aspect of the NTC is that it allows a brigade to get used to deploying "on their own[60]". The program of the Cold War years pales in comparison. It would be hard to argue that the success demonstrated in this area during the Intrinsic Action exercises over the past few years is not largely attributable to the RSOI training being conducted at the NTC.

Intelligence

The advantages to a military force of winning the intelligence battle (the term for this is "information dominance") are tremendous. At the tactical level, this is borne out by a 1993 Rand study on reconnaissance conducted at the NTC. This study demonstrated that when BLUEFOR units had good intelligence (i.e. the commander had the information

that he needed/wanted) they "won" over 60% of the time; when they had poor intelligence, they lost over 70% of the time. The results for the OPFOR were even more striking: they won over 90% of the time when they had good intelligence[61]! At the operational level, who could doubt that a major factor in the success of Operation Desert Storm was the fact that the Allied Coalition achieved almost complete information dominance over the Iraqis? This was achieved by integrating intelligence from all levels, including Unmanned Aerial Vehicles (UAV) and satellite imagery[62], among other sources.

How is the NTC doing in it's efforts to train units to accomplish this integration? According to a 1994 Rand study[63] and recent NTC Trends Analysis[64], not very well. But before this problem is pinned entirely on the NTC, it deserves a deeper look at it's origins.

In simple terms, the process of successfully integrating intelligence from all levels of sources really, referred to as the Reconnaissance and Surveillance (R&S) Plan development and execution, consists of four parts. First, the brigade must decide what, exactly, information it needs based on their plan to defeat the enemy. Second, it must determine what friendly element (be it organic scouts, adjacent units, higher headquarters, etc.) can provide that information. At the NTC, both of the first two steps are entirely on the brigade to accomplish. Third, it must communicate that requirement to each of the appropriate elements. This is done when the brigade publishes it's R&S plan, which is issued as part of the brigade operations order. In the R&S Plan, the brigade "tasks" it's battalions to use their organic collection assets actually on the ground to provide specific intelligence within their capabilities, But, since all of their higher division and corps intelligence assets are not present at the NTC, the R&S Plan asks the notional higher

headquarters, the 52d Infantry Division (Mechanized) for specific intelligence. Lastly, the brigade must receive the required intelligence and analyze it in a timely enough manner that either validates the plan or causes some change to be made. At the NTC, units do receive reasonably complete answers from the 52d Infantry Division (Mechanized), in the form of reports from notional UAVs, LRSCs, etc., so the NTC is doing a good job at providing intelligence from higher sources that BLUEFOR units would likely encounter during an MRC. In that aspect, they are providing what the CINCs need. However, some other aspects are troubling.

According to the NTC Trends Analysis, R&S Plan development and execution has been identified as the number one problem in the intelligence area for the past nine quarters[65]. In addition, the Commander, NTC OPSGP has designated R&S as a high priority for trend reversal, indicating it's importance and current unit shortcomings. Both the 1994 Rand study and the NTC consider this a unit training problem, essentially stating that the problem lies in that staffs are not conducting adequate training at home station in preparation for their NTC rotation. The result is that they are not prepared to conduct this process in the time constrained environment at the NTC. They also recommend that US Army doctrine be changed to make the R&S Plan into an R&S Order, thus fostering better staff integration through the procedures for developing an order[66]. In addition to the NTC findings, the 1993 Rand study noted that BLUEFOR organic scout platoons, the most flexible and timely collection assets available to the BLUEFOR, were ready only 50% of the time to do their jobs, even if an R&S Plan was produced and issued early on[67].

But, given the chronic nature of the problem despite BLUEFOR units' best efforts at correction, perhaps there is another factor to consider. A look at the environment provided by the NTC in this area may be in order.

During force-on-force operations, the NTC tries to get in five battles during the first eight days following RSOI week, a high battle rhythm. Traditionally, a one-day battle is followed by one day of preparation for the next battle[68]. The division operations order for the brigade's next mission is issued before the current mission has even begun, giving the brigade approximately 48 hours to prepare. If the brigade staff is well trained, it can therefore issue it's operations order, to include a good R&S Plan, right after the AAR for the mission just conducted, allowing the battalions about one and one half days to plan prepare for battle. Theoretically, this would also allow the battalion's to dispatch their organic reconnaissance assets almost immediately. But as seen above, the ability of the brigade staff and the battalions to accomplish this in a reasonable time period to allow effective reconnaissance to begin is dubious.

Could it be that the NTC, in it's effort to get in as many battles as possible, has so constrained time as to make it almost impossible for a BLUEFOR unit to succeed? Proponents would point to the OPFOR as a proof that this is not so, since they are very adept at performing these same functions within these time constraints[69]. But, as shown above, the OPFOR has some tremendous advantages, performing these functions in the field, dozens of times each year and over the same terrain. Can BLUEFOR units realistically be expected to achieve and maintain nearly the same standard, given the availability of time, terrain, and resources?

The NTC observations as to the causes for failure are no doubt valid. Units must always strive to do better. However, the time allowed at the NTC to perform these functions may be another factor. Maybe units could do better if they had more time. The NTC's own literature suggests "the S-2 *could* produce complete products if given adequate *time*"[70] (italics not added by author). This seems to bear out the criticism that, with so many battles, the training standard is *time*, not *proficiency*. It may be worth it for the NTC to relook this aspect of it's program. An adjustment here may go a long way toward improving unit performance in this area.

Indirect Fire Support

As stated above, both CINCs need Army brigades to be capable of performing the UJTL tactical task TA 3 Employ Firepower. For a brigade, this means combining and coordinating all indirect fires and CAS in support of the commander's concept of operations, in order to maximize their effects in accomplishing the mission[71]. How does the NTC program go about training in this area? First, some background on how indirect fires work for a training at the NTC.

A BLUEFOR brigade deploys to the NTC with it's organic mortars (these belong to the brigade's maneuver battalions) and one battalion of direct support (DS) field artillery (this belong to it's parent division). This DS artillery battalion has a habitual relationship with the brigade; that is, it generally trains with the brigade as part of the BCT, although it does not belong to them. These units form the nucleus of the brigade's indirect fire support and are the most responsive form of fires available to the brigade

commander. That is, he has a great degree of control over what, where, and when their fires are employed.

If the brigade needs additional indirect fires for a mission, it must request those fires through his parent division. The division can provide additional indirect fires from it's own MLRS unit or general support (GS) artillery battalion, or from corps units designated to support the division. The key difference here is that the brigade does not have nearly the control over these divisional fires that he does over his own organic and DS fires. Divisional and corps indirect fires may not always be available to the brigade, since their main mission is not to support the brigade close fight, but rather to support the division's deep fight and conduct counterbattery fire against the enemy artillery[72].

At the NTC, the division and corps artillery units mentioned above do not all actually deploy with the brigade, although some elements of them may. For elements of these units not actually on the ground, the NTC's fire support Training Analysis Facility (TAF) functions in a limited role as the BLUEFOR brigade's higher headquarters for indirect fires, notionally performing deep and counterbattery fires by division and corps artillery units and responding to the brigade's request for supporting fires. Requests by brigades for additional fire support are approved or disapproved based on the current division scenario. The concept is to provide a realistic simulation, transparent to the brigade, of the indirect fires system and it's effects on the enemy.

The effects of indirect fires are simulated at the NTC by using the Simulated Area Weapons Effects (SAWE) system, which tells the TAF which elements are "killed" by these fires. When a unit requests mortar or artillery fire, the request is passed up the fire

support system, eventually going to the battery that "fires" the mission. The request also goes to the TAF, who enters the mission into the SAWE system. The computer simulates the location of the strike and it's effects. This information is then transferred to the Multiple Integrated Laser System II (MILES II), which "kills" the victim(s) by shutting down it's capabilities[73]. Although this system cannot replicate exactly the sight and sound effects of actual artillery, it is a far cry from the days when OCs manually assessed casualties (somewhat subjectively). By and large, the use of the TAF, SAWE, and MILES II are an excellent use of available technology to simulate the indirect fires environment in which brigades would operate in actual combat.

At the brigade level, Fire Support Officers (FSO) are assigned at the brigade and at each battalion. These FSOs are tasked with planning and coordinating the indirect fires of units from the battalion, brigade, division, and corps units. The instrumentation system described above is used to execute their plans. OCs at battalion and brigade level observe and record the whole process from planning to the final effects, presenting their findings at the AARs. This allows a cause and effect relationship to be formulated by the BLUEFOR, enhancing learning.

One criticism is that the NTC scenarios perpetuate the practice of forcing the FSO staff at brigade and battalion levels to plan and conduct indirect fire missions (such as counterfire) that 1) are supposed to be done by the division, and 2) they are not staffed to perform[74]. Even if this is true, this may be not be all bad. As noted above, brigades have been deploying in support of CINCs operational needs without their parent divisions (at least initially) recently. LTC(P) Robert Williams, a former battalion commander who

trained at the NTC, believes that one of the strengths of the NTC is that "it trains you to deploy alone" without everything that the brigade might doctrinally expect to have to support it[75].

In addition to US Army indirect fire systems, brigades must be capable of integrating the indirect fires from naval gunfire. NTC scenarios will include the availability of these joint fires, if the BLUEFOR unit requests it. When they do, ANGLICO teams are provided to the brigade to coordinate these fires, which are simulated in the same manner previously described.

Another joint aspect of the NTC is CAS fires, which are integrated into each NTC rotation. This is nothing new at the NTC. The USAF has been flying actual sorties at the NTC since 1981 and has had permanent USAF representation at the NTC since 1982[76]. An NTC rotation today often includes the availability of USN or USMC aircraft as CAS sorties[77]. When it does, the brigade has the opportunity to integrate these fires into their operations.

For a BLUEFOR brigade, the CAS "system" at the NTC closely replicates a real life experience, subject only to the same drawbacks in the simulation of artillery fires. The brigade brings with it to the NTC their attached brigade and battalion USAF Forward Air Controllers (FAC). As in actual combat operations, the FACs are an integral part of BLUEFOR's planning and execution. When CAS sorties are available, the FACs call and direct actual aircraft to their targets. The USAF Air Warrior computer system, located at Nellis Air Force Base in Las Vegas, Nevada, provides data input to the TAF and MILES

II systems at the NTC, allowing the recording of casualties as in the indirect fires system described above.

About the only criticism of this aspect of the NTC that can be countenanced is that there are not aircraft from all three services available for each rotation. However, since their attached FACs can call for and control CAS from any of the services, this point is probably moot. The main point is that aircraft are available and CAS is practiced during every single NTC rotation.

All told, the training of brigades on indirect fire procedures, to include the procedures for integrating the fires from other services, appears to be right in line with what the CINCs need. The Army's continuing efforts to improve the evaluation of indirect fires through the use of technology means that this program will probably continue to get even better in the future[78].

The OPFOR

FORSCOM's mandate for the opposing forces is to "Conduct an accurate portrayal of a challenging threat by OPFOR, according to approved CTC threat models[79]." For anyone who has experienced an encounter with the OPFOR, "challenging" may be an understatement. They still routinely dominate the battlefield at the NTC, winning five out of six of the battles against the BLUEFOR during force-on-force encounters. This continued dominance underscores the fact that the NTC utilizes a "designed-to-lose" approach for the training BLUEFOR units. Or, as the Rand Corporation states "BLUEFORCE learns by losing[80]." This approach is arguable: more on that in the

conclusion. The question here is: Are the CTC threat models, published in a series of TRADOC pamphlets, related to the CINCs situations; that is, do they help train units for the two MRCs?

Former Soviet Union equipment is still the norm with the OPFOR because many potential threat countries are equipped with these systems and using them paints an immediate, concrete picture on their capabilities due to US familiarity with them[81]. Clearly this approach is sound in that both Iraq and North Korea rely heavily on this very equipment. The latest instrumentation systems, the Multiple Integrated Laser Engagement System II (MILES II), which replicates the effects of real direct fires, and the SAWE system, are more realistic than earlier versions. For example, a BMP-2 (an OPFOR personnel carrier) is less capable than it's US counterpart, the M2 series Bradley Fighting Vehicle[82]. There can be no argument that this is a sound approach in this area. However, putting together OPFOR tactics and organization that can be applicable to both CINC's scenarios is a much tougher nut to crack.

Unlike the initial OPFOR doctrine that replicated only the former Soviet military, current OPFOR doctrine calls for a capabilities-based approach. It is true that the Heavy OPFOR doctrine is based in part on that of the military forces of the former Soviet Union[83]; however, OPFOR packages today are composites which were constructed to provide a wide range of enemy capabilities. The capabilities-based OPFOR model is designed to be the basis for the doctrine used at all CTCs[84].

When it comes to how the OPFOR fights today, perhaps the most pronounced change involves how they fight. Instead of the brute force, strict timelines, and adherence

to doctrinal tenets at all times, OPFOR commanders now have much more flexibility than before. In short, they are much more free to utilize maneuver and finesse, adjusting to changing situations, in line with the way US units fight[85]. Thus, former Soviet Union tactics, techniques, and procedures that were rigidly applied in the past at the NTC by the OPFOR are today considered broad guidance and can be modified in accordance with individual commander's initiatives. Contrast this with the inflexibility built in to the doctrine both Iraq and North Korea.

The model for OPFOR organization has changed as well. although it still looks very "Soviet." Unlike the previous OPFOR, which was organized around fixed structures, a building block approach is used here as well. These packages are not associated with a specific order of battle of any one potential enemy but, rather, provide the building blocks from which a large number of potential orders of battle can be portrayed[86]. Although the OPFOR is now larger (it is now the 60th Guards Motorized Rifle Division, portrayed by the 11th Armored Cavalry Regiment), the fact that the NTC is now conducting BLUEFOR brigade level operations has reduced their force ratio advantage from 3:1 to 1.3:1 (in some cases) when attacking a prepared BLUEFOR brigade defense, although they still strive for a 3:1 advantage in most attacks. In the defense, their disadvantage is still 1:3, but the size of their defensive sector has been approximately tripled[87]. As shown above, these maneuver force ratios may be far less than could be anticipated in combat against either Iraq or North Korea.

While the NTC is primarily geared towards presenting a heavy force as the OPFOR, it can also perform dismounted operations in conjunction with heavy offensive

operations. One form of dismounted operation, called Task Force Destroyer, involves dismounted elements of company, and occasionally, battalion size. OPFOR doctrine calls for this force to ride in trucks to the last BLUEFOR-held covered and concealed point, where they dismount and move toward their objective[88]. In other words, they replicate very closely the NKA infantry operations described in Chapter II. So despite the fact that much of the terrain at NTC is not as suitable for dismounted operations as that found in Korea (although some areas are actually quite good), the OPFOR does a suitable job of replicating a NKA type scenario in these operations.

In addition to their own RAG, the OPFOR regiment also enjoys support from the DAG, containing both Soviet cannon artillery and Multiple Rocket Launchers (MRL). A BLUEFOR unit finds out early on at the NTC that they are greatly outgunned from the outset[89]. This situation mirrors the North Korean scenario nicely, but is not what US units can expect to see against the Iraqis, as evidenced in Desert Storm. One critic makes an eloquent argument against allowing the OPFOR this huge advantage, which often render the lead BLUEFOR task force combat ineffective well before engaging OPFOR maneuver forces, let alone achieving their objective, thereby denying BLUEFOR units meeting training goals[90]. Even if this were true, a counterargument can be framed by a simple question: How else will training units learn to deal with being outnumbered in artillery, as they would against the North Koreans? Besides, a former OPFOR battalion commander claims that this is not the case today - the NTC strives to not let this happen in order to emphasize the direct fire fight between BLUEFOR and OPFOR[91].

Lastly, the OPFOR conducts reconnaissance in very much the same way that both the Iraqi and North Korean doctrine calls for. The divisional reconnaissance companies typically operate about 50 kilometers (12-24 hours) in front of the OPFOR main body. regimental reconnaissance normally operates 25-30 kilometers (0-12 hours) out[92]. Although not to be found specifically in their doctrinal publications, those OPFOR Divisional Reconnaissance Teams (DRTs) that are often concealed in BLUEFOR sectors are a pretty good approximation of the NKA SOF conducting operational reconnaissance missions described above.

In summation, the OPFOR at the NTC does not seek to portray a specific threat (Iraqi or North Korean). The capabilities approach is "vanilla", although it seems to offer a blend of the two, where possible, with some things thrown in (like flexibility) that is present in neither. The conscious decision not to try to replicate one or the other potential opponent seems to be sound. One thing can be said for this conscious approach to a vexing problem: If a BLUEFOR unit can beat the NTC OPFOR, they can probably be expected to hold their own against either of the two potential threat forces.

IV. Conclusion

On the whole, the program at the NTC does provide excellent training that supports the two CINC's requirements in the areas under study. None could argue that the NTC of today is stagnated in the prerequisites of the Cold War years; the improvements in the program are indicative of a learning organization. As Peter Senge states, "If there is one single thing a learning organization does well, it is helping embrace change[93]." Perhaps, like almost all organizations, the NTC could use a little fine tuning in some areas. This section seeks to provide a discussion on a few thoughts and potential changes that, if the Army truly wants to "train as you fight", could enhance the NTC's support of the CINC's in these areas.

The current RSOI program at the NTC seems to have two drawbacks. The first is that, while rail-loading and unloading is a part of the training, it provides no training or visibility on the planning, loading, and unloading of ships. This observation, of course, applies to supporting the requirement to ship unit equipment to Korea. One may say that this is no big deal, that the stevedores take care of this, but the author has some not-too-fond memories of some of the nuances in this area during deployment to Saudi Arabia in 1990. Suffice it to says that it is not as easy as it would appear. But what to do about this?

One suggestion would be to have units actually rail the equipment that won't be drawn at NTC to their Sea Port of Debarkation (SPOD), ship it to a California port, and then rail it to the NTC, all as part of their NTC deployment. In all fairness, the time and

cost associated with this, as well as other factors, may be prohibitive in light of today's budget and personnel tempo. But it might be worth looking into.

The second RSOI suggestion concerns deployment to Kuwait: the procedure for drawing equipment and the amount of time allowed for it. The current procedure for drawing equipment at Camp Doha calls for units to draw equipment rapidly. Twelve to sixteen hours after they land in Kuwait, the unit is expected to be ready to screen and zero weapons and integrate into the force. Detailed accountability will not be established until the unit deploys to their TAA. They are not required to sign for their equipment until 10 days after issue. The NTC does not currently operate this way, as described above. What if the units deploying to the NTC followed the Kuwait model? Although accountability and equipment condition upon draw are concerns, this could probably be mitigated. After all, the contractor at the NTC is the same contractor on the ground in Kuwait. Another concern, one that may not be so easy to mitigate, is that units must draw MILES II and instrumentation kits at the NTC, necessary components for force-on-force simulations that are not part of the process during an actual deployment. It may be that the NTC cannot further compress the time for drawing equipment, but all attempts should be made to do so.

There also appears to be some consequences attached to using a "designed to lose" approach. As stated earlier, this is based on the belief that units will learn better and more lasting lessons from losing than winning. But this approach can also lead to missed training opportunities for the training brigade. For example, conducting operations in depth (encirclement, exploitation, and pursuit) is called for as an integral part of today's

joint doctrine[94]. Considering the escape of so much of the Republican Guard during the Gulf War, one would think that these types of operations would have a little more visibility these days. Heavy attrition by the OPFOR precludes most units from even considering these types of operations, let alone attempting them.

LTC Williams, the former battalion commander mentioned earlier, feels that while the NTC is a good program in most ways, this approach has a few other down sides. First, he wonders if the effort required from the brigade in order to handle the additional requirements brought about by the introduction of RSOI week didn't "water down core competencies." In other words, with no additional time available, did the efforts at home station to prepare to conduct RSOI at the NTC detract from efforts to train for combat operations, resulting in a lower level of learning taking place during the rotation? He also feels that the approach stretches the missions assigned at the NTC beyond the capabilities of the force structure. For example, a brigade defending at the NTC with only two battalion task forces along a 45 kilometer front in mostly open terrain is teaching a bad lesson (blurring the distinction between a risk and a gamble)[95], given that current doctrine taught at the US Army Command and General Staff College calls for a battalion task force to typically defend a standard frontage of 4 kilometers or an extended frontage of only 8 kilometers[96]. This argument seems hard to counter, given the Army's "train as you fight" mantra. It is hard to imagine that the US would deploy a unit to a MRC under those circumstances without some kind of additional firepower to assist it.

So, even though the OPFOR approach is basically sound, there are some drawbacks. One way to overcome the drawback of missed training opportunities would

be for the NTC OPSGP to script some of their scenarios to include operations in depth; for example, a pursuit mission designed to cut off a beaten, withdrawing OPFOR. While BLUEFOR units may not request missions of these types, simply adding them to the menu of missions may increase visibility and the frequency at which BLUEFOR units request them, adding a dimension to the NTC that is more all inclusive of joint doctrine today.

In response to concerns such as those voiced by LTC Williams about "risk versus gamble," perhaps the NTC could consider revising their scenarios in any one of three ways: 1) A weaker OPFOR could be sent to challenge BLUEFOR units when their assigned frontages are larger than current doctrine calls for, 2) reduce frontages to more doctrinally correct lengths, or 3) retain current large frontages and OPFOR formations, but provide the BLUEFOR with additional firepower, say in the form of air assets. The argument concerning RSOI watering down core capabilities seems like "putting the cart before the horse." If units cannot perform RSOI when deployed in support of CENTCOM or PACOM operational missions, then all else is moot.

In 1984, General Robert Sennewald, the FORSCOM commander, observed that the NTC had become "the finest training environment for heavy forces ever experienced in our Army" and that it had "laid the cornerstone for evolution of NTC future direction[97]." Little did he know at the time that the Soviet Union would fall, the US Army would adopt a force projection approach, and that the "two MRC" strategy would come in to being. But his words still ring true. The NTC has changed, though probably not as he would have predicted.

By showing that the NTC is basically on track in areas of RSOI, intelligence, and indirect fires training, and that it is presenting a capable OPFOR to BLUEFOR units, this monograph has demonstrated that the NTC, as an integral part of the Army's program to fulfill it's Title 10 requirements, has evolved with the changing times. Although not without a few areas that may deserve some attention, the NTC today is a dynamic, useful tool in the Army's kit bag for providing CENTCOM and PACOM exactly what they need: units trained and ready for deployment and commitment in either of the two MRCs.

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[1] Jeffrey Record, "Ready for What and Modernized Against Whom? A Strategic Perspective on Readiness and Modernization." (Carlisle Barracks, PA: US Army War College, April 10, 1995), 3.

[2] Joint Pub 1, Joint Warfare of the Armed Forces of the United States (Washington, DC: Department of Defense, 10 January 1995), ix.

[3] United States Title 10, Armed Forces - Sections 3001 to 5000. (Saint Paul, MN: West Publishing Company, 1959), 34-35.

[4] Joint Pub 1, Joint Warfare of the Armed Forces of the United States, i-ix.

[5] CJCSM 35500.04, Universal Joint Task List (UJTL). (Washington, DC: Chairman of the Joint Staff, 15 May 1995), 5-1.

[6] US Army, "The US Army Homepage," available from http://army.mil/mission_vision.html; Internet; accessed 31 January 1997.

[7] Joint Pub 0-2, Unified Action Armed Forces. (Washington, DC: Department of Defense, 24 February 1995), II-13.

[8] Joint Pub 1, Joint Warfare of the Armed Forces of the United States, I.

[9] US Forces Command, "The FORSCOM Homepage," available from http://160.136.17.213/mission.html; Internet; accessed 31 January 1997.

[10] Field Manual 25-100, Training the Force. (Washington, DC: Headquarters Department of the Army, 15 November 1988), 1-3.

[11] Ibid., 1-4.

[12] Army Regulation 350-50, Combat Training Center Program. (Washington, DC: Headquarters Department of the Army, 24 May 1995), 1.

[13] James Blackwell, Thunder in the Desert - The Strategy and Tactics of the Persian Gulf War. (New York, NY: bantam Books, 1991), 177-180.

[14] LTC(P) Robert M. Williams, US Army, interview by author 26 March 1997 at Fort Leavenworth, Kansas. LTC Williams was the Executive Officer for 3-67 Armor, one of the tank battalions of the Tiger Brigade, during Operations Desert Shield and Desert Storm. He is also a former battalion commander whose unit trained at the NTC.

[15] US Central Command, "USCENTCOM 1994 Operations," available at http://ccfs.centcom.mil/94ops.html; Internet; accessed 28 February 1997.

[16] Anne W. Chapman, The Origins and Development of the National Training Center 1976-1984. (Fort Monroe, VA: US Army Training and Doctrine Command, 1997), 3.

[17] Ibid., 1.

[18] Mark L. Waters, "The Employment of the Divisional Artillery Group at the National Training Center" (Master of Military Arts and Sciences Thesis, US Army Command and General Staff College, 1996), 1-2. MAJ Waters served as an OC at the NTC prior to his attendance at the Command and General Staff College. As such, he possesses a thorough knowledge and unique perspective on the NTC program.

[19] Joint Pub 3-0, Doctrine for Joint Operations. (Washington, DC: Department of Defense, 1 February 1995), I-1.

[20] CJCSM 35500.04, Universal Joint Task List (UJTL), 2-5.

[21] Ibid., 2-5.

[22] Ibid., 2-111 and 2-83.

[23] US Central Command, "CINCCENT 1996 Posture Statement," available from http://ccfs.centcom.mil/96post.html; Internet; accessed 10 March 1997.

[24] CALL Newsletter 97-7, Reception, Staging, Onward Movement, & Integration (Fort Leavenworth, KS: Center for Army Lessons Learned, February 1997), 22-23.

[25] Ibid., 18.

[26] "CINCCENT 1996 Posture Statement", 5 & 17.

[27] US Central Command, "Challenges to Stability," available at http://ccfs.centcom.mil/analysi.html; Internet; accessed 30 January 1997.

[28] Ibid., 1-2.

[29] National Training Center 100-91, The Iraqi Army: Organization and Tactics. (Fort Irwin, CA: National Training Center, 1991), 35-141.

[30] Ibid., 41-45.

[31] US Pacific Command, "Facts Page," available at http://www.pacom.mil/facts.htm; Internet; accessed 7 March 1997.

[32] This information on the size of the ROK Army was found in the United States Naval Institute Military Database, available at the Combined Arms Research Library, Fort Leavenworth, Kansas. The information is dated 6 May 1996.

[33] It is possible that would be available for a unit deploying to Korea if the MRC in Southwest Asia was not on-going simultaneously or anticipated to start soon. For the purposes of this monograph, the author assumes the worse case - it is not available.

[34] PC-2600-6421-94, North Korea Handbook. (Washington, DC: Defense Intelligence Agency, 1994), 3-1.

[35] Ibid., 3-3 through 3-4.

[36] Ibid., 5-26 through 5-31.

[37] Field Circular 100-2-99, North Korean People's Army Operations. (Fort Leavenworth, KS US Army Combined Arms Combat Development Activity, 1986), 3-1.

[38] PC-2600-6421-94, North Korea Handbook, 3-23 through 3-40.

[39] Ibid., 3-23.

[40] Ibid., 3-87 through 3-121.

[41] Ibid., 3-29 through 3-31.

[42] Ibid., 3-48 through 3-105.

[43] Chapman, The Origins and Development of the National Training Center 1976-1984, 5. Most of this section of the monograph concerning the development of the NTC in the

1980s comes from Dr. Chapman's book. The author will limit further references in this section to those facts that may seem contentious to the reader.

[44] Ibid., 7.

[45] Ibid., 16.

[46] Ibid., 129.

[47] Ibid., 82.

[48] Ibid., 82.

[49] Ibid., 82-84.

[50] Edward L. Caum, "History of the Opposing Forces at NTC," Red Star Thrust PB-30-94-3 (October 1994): 7.

[51] CALL Newsletter 97-7, Reception, Staging, Onward Movement, & Integration, 14.

[52] Ibid., 15.

[53] LTC(P) Christopher L. Baggott, interview by author 9 April 1997 at Fort Leavenworth, KS. LTC(P) Baggott commanded the 1st Squadron, 11th Armored Cavalry Regiment (the current OPFOR unit) from 1994-1996. He is also a veteran of over 20 BLUEFOR rotations from 1982-1993 in capacities ranging from troop commander to brigade executive officer.

[54] MG Paul Kern, US Army, interview by author 17 March 1997 at Fort Leavenworth, KS. MG Kern is currently the Commanding General of the 4th Infantry Division (Mechanized) at Fort Hood, Texas and a veteran of NTC rotations since the 1980s.

[55] LTC Moore, Joseph B., to author 15 February 1997, transcript in the hands of the author. LTC Moore is currently the Chief of Plans and Operations for the NTC Operations Group.

[56] Ibid.

[57] CALL Newsletter 97-7, Reception, Staging, Onward Movement, & Integration, 15-16.

[58] Author's interview with LTC(P) Baggott.

[59] Letter to author from LTC Moore noted above.

[60] Author's interview with LTC(P) Williams.

[61] Martin Goldsmith, Quantifying the Battlefield: Rand Research at the National Training Center. (Santa Monica, CA: The Rand Corporation, 1993), 8-9.

[62] Blackwell, Thunder in the Desert, 225.

[63] Jon Grossman, Battalion-Level Command and Control at the National Training Center. (Santa Monica, CA: The Rand Corporation, 1994), xii-xii.

[64] US Army, NTC Trends Analysis 97-3 (Fort Leavenworth, KS: Center for Army Lessons Learned, January 1997), 1-8 and CTC Trends 97-9 (February 1997), II-1 through II-5.

[65] Ibid.

[66] US Army, NTC Trends Analysis 97-3, 4-7.

[67] Goldsmith, Quantifying the Battlefield, 11.

[68] Letter to author from LTC Moore.

[69] Author's interview with LTC(P) Baggott.

[70] US Army, NTC Trends Analysis 97-3, 6.

[71] CJCSM 35500.04, Universal Joint Task List, 2-112.

[72] Field Manual 6-20-2. Corps Artillery, Division Artillery, and Field Artillery Brigade Headquarters, (Washington, DC: Headquarters Department of the Army, 1993), 5-4.

[73] Author's interview with LTC(P) Baggott.

[74] Waters, "The Employment of the Division Artillery Group at the National Training Center," 79-81.

[75] Author's interview with LTC(P) Williams.

[76] Chapman, The Origins and Development of the National Training Center 1976-1984, 131.

[77] Letter to author from LTC Moore.

[78] Chapman, The Origins and Development of the National Training Center 1976-1984, 79.

[79] Army Regulation 350-50, Combat Training Center Program, 6.

[80] Jon Grossman, Conducting Warfighting Experiments at the National Training Center, (Santa Monica, CA: Rand Corporation, 1995): 18-19.

[81] Ibid., ii-iii.

[82] Peter Palmer, "Decision Point Tactics: Fighting the Enemy, Not the Plan," Red Star Thrust PB-30-96-4 (October 1996): 4.

[83] CAC & Ft Lvn Pamphlet 350-1, Heavy Opposing Forces (OPFOR) Organization Guide (Fort Leavenworth, KS: US Army Combined Arms Command and Fort Leavenworth, 24 September 1993), ii.

[84] TRADOC Pamphlet 350-16, Heavy Opposing Force (OPFOR) Tactical Handbook (Fort Monroe, VA: US Army Training and Doctrine Command, 15 September 1994), ii.

[85] "Decision Point Tactics: Fighting the Enemy, Not the Plan," 4.

[86] CAC & Ft Lvn Pamphlet 350-1, Heavy Opposing Forces (OPFOR) Organization Guide, ii.

[87] Palmer, "Decision Point Tactics: Fighting the Enemy, Not the Plan," 4.

[88] Steven Kuni, "OPFOR Dismounted Infantry Offensive Operations at the National training Center," Red Star Thrust PB-30-94-1 (April 1994): 19-21.

[89] Waters, "The Employment of the Division Artillery Group at the National Training Center," 2-4.

[90] Ibid., 51.

[91] Author's interview with LTC(P) Baggott.

[92] TRADOC Pamphlet 350-16, Heavy Opposing Force (OPFOR) Tactical Handbook, 4-6 through 4-9.

[93] Peter Senge, The Fifth Discipline Fieldbook (New York, NY: Doubleday, 1994): 11.

[94] CJCSM 35500.04, Universal Joint Task List, 2-76.

[95] Author's interview with LTC(P) Williams.

[96] US Army, Student Text 100-3 Battle Book (Fort Leavenworth, KS: US Army Command and General Staff College, 1 June 1996): 2-103.

[97] Chapman, The Origins and Development of the National Training Center 1976-1984, 141.

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